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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/066,383    04/29/98    PARTEN    W    15258-317

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EXAMINER

BUSHEY, C

ART UNIT

PAPER NUMBER

1724

DATE MAILED:

09/10/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/066,383**

Applicant(s)

**PARTEN**

Examiner

**Scott Bushey**

Group Art Unit  
**1724**



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-14 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-14 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 1 sheet

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

1. The abstract of the disclosure is objected to because legal phraseology, i.e., "comprising" and "means", should be avoided in the abstract. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: 1) page 5, line 25, "diagrammatic" is misspelled; 2) page 5, lines 28 and 30, "profile" is misspelled.

Appropriate correction is required.

3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 1, "the structured packing" lacks antecedent basis. Also, in claim 1, lines 3-4, "the corrugations" lack antecedent basis, while on lines 6 and 7, "the interface" and "the continuous phase", respectively, lack antecedent basis. Further, on line 6 of claim 1, applicant should clarify whether the term "element" is intended to be singular or plural.

In claim 9, "the gap" lacks antecedent basis.

In claim 12, line 2, "the corrugations" lack antecedent basis. Also on the last line of claim 12, "the continuous phase" and "the interface" lack antecedent basis. Further, on line 4 of claim 12, applicant should clarify whether the term "element" is intended to be singular or plural.

In claims 13 and 14, "said localised change in configuration" lacks antecedent basis. Apparently, claims 13 and 14 should depend from claim 12, rather than claim 10, which change in dependency would provide antecedent basis for the offending phrase in claims 13 and 14.

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by West Germany 1253673 (Figs. 1 and 2; the paragraph bridging columns 5 and 6).

Applicant should note that the paragraph bridging columns 5 and 6 of the reference clearly suggests providing a free gap between the structured packing elements.

6. Claims 1-5, 8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Korsell (Fig. 4; col. 1, lines 41-49; col. 3, lines 10-22; claim 1).

7. Claims 1-5, 8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by EP 0394718 (Fig. 4; English Abstract, especially the advantages section thereof).

8. Claims 1, and 8-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese Patent Abstract 06312101.

The reference clearly teaches providing gaps between structural packing elements (20,30,40,50), said gaps being occupied by liquid flow control means (101,102,103) designed to reduce the pressure drop within the column (1).

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9. Claims 1-8, and 12-14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Billingham et al (Figs. 9 and 11; col. 3, lines 50-54; col. 6, lines 4-14).

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over West Germany 1253673.

West Germany 1253673 (Figs. 1 and 2; the paragraph bridging columns 5 and 6) as has been applied above clearly suggests providing a free gap between the structured packing elements to reduce pressure drop within the contact column. The reference is apparently silent as to the preferred depth of the free space gap between the structured packing elements. Absent an unexpected showing of criticality by applicant, it would have been obvious and well within the purview of the prior art to provide the gap, as suggested by the West German reference, with a depth of at least 2 cm, since such a depth would be required to allow for proper uniform drainage of the liquid from the outlet of the higher packing element into the inlet end of the lower packing element.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Applicant should note that Swiss Patent 666,199 (Figs. 8 and 9), cited in the corresponding foreign application, also clearly discloses a gap with a fluid flow control means therein provided between the structural packing elements (4).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (703) 308-3581.

C. SCOTT BUSHEY  
PRIMARY EXAMINER  
GROUP 1300

csb

September 9, 1999

  
9-9-99